General

Guideline Title

Psychosis and schizophrenia in adults: treatment and management.

Bibliographic Source(s)

National Collaborating Centre for Mental Health. Psychosis and schizophrenia in adults: treatment and management. London (UK): National Institute for Health and Care Excellence (NICE); 2014 Feb. 54 p. (Clinical guideline; no. 178).

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: National Collaborating Centre for Mental Health. Schizophrenia: core interventions in the treatment and management of schizophrenia in adults in primary and secondary care. London (UK): National Institute for Health and Clinical Excellence (NICE); 2009 Mar. 41 p. (NICE clinical guideline; no. 82).

This guideline meets NGC's 2013 (revised) inclusion criteria.

Regulatory Alert

FDA Warning/Regulatory Alert

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory and/or warning information has been released.

- May 10, 2016 – Olanzapine : The U.S. Food and Drug Administration (FDA) is warning that the antipsychotic medicine olanzapine can cause a rare but serious skin reaction that can progress to affect other parts of the body. FDA is adding a new warning to the drug labels for all olanzapine-containing products that describes this severe condition known as Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS).

Recommendations

Major Recommendations

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health

(NCCMH) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Recommendations are marked as [2009], [2009, amended 2014], [2014] or [new 2014].

- [2009] indicates that the evidence has not been reviewed since 2009.
- [2009, amended 2014] indicates that the evidence has not been reviewed since 2009 but changes have been made to the recommendation wording that change the meaning.
- [2014] indicates that the evidence has been reviewed but no changes have been made to the recommendation.
- [new 2014] indicates that the evidence has been reviewed and the recommendation has been updated or added.

Care Across All Phases

Service User Experience

Use this guideline in conjunction with Service user experience in adult mental health (NICE clinical guidance 136) to improve the experience of care for people with psychosis or schizophrenia using mental health services, and:

- Work in partnership with people with schizophrenia and their carers.
- Offer help, treatment and care in an atmosphere of hope and optimism.
- Take time to build supportive and empathic relationships as an essential part of care. [2009; amended 2014]

Race, Culture and Ethnicity

The NICE guideline Service user experience in adult mental health (NICE clinical guidance 136) includes recommendations on communication relevant to this section.

Healthcare professionals inexperienced in working with people with psychosis or schizophrenia from diverse ethnic and cultural backgrounds should seek advice and supervision from healthcare professionals who are experienced in working transculturally. [2009]

Healthcare professionals working with people with psychosis or schizophrenia should ensure they are competent in:

- Assessment skills for people from diverse ethnic and cultural backgrounds
- Using explanatory models of illness for people from diverse ethnic and cultural backgrounds
- Explaining the causes of psychosis or schizophrenia and treatment options
- Addressing cultural and ethnic differences in treatment expectations and adherence
- Addressing cultural and ethnic differences in beliefs regarding biological, social and family influences on the causes of abnormal mental states
- Negotiating skills for working with families of people with psychosis or schizophrenia
- Conflict management and conflict resolution [2009]

Mental health services should work with local voluntary black, Asian and minority ethnic groups to jointly ensure that culturally appropriate psychological and psychosocial treatment, consistent with this guideline and delivered by competent practitioners, is provided to people from diverse ethnic and cultural backgrounds. [2009]

Physical Health

People with psychosis or schizophrenia, especially those taking antipsychotics, should be offered a combined healthy eating and physical activity programme by their mental healthcare provider. [new 2014]

If a person has rapid or excessive weight gain, abnormal lipid levels or problems with blood glucose management, offer interventions in line with relevant NICE guidance (see Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children [NICE clinical guideline 43], Lipid modification. Cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease [NICE clinical guideline 67] and Preventing type 2 diabetes: risk identification and interventions for individuals at high risk [NICE public health guidance 38]). [new 2014]

Offer people with psychosis or schizophrenia who smoke help to stop smoking, even if previous attempts have been unsuccessful. Be aware of the potential significant impact of reducing cigarette smoking on the metabolism of other drugs, particularly clozapine and olanzapine. [new 2014]

Consider one of the following to help people stop smoking:

- Nicotine replacement therapy (usually a combination of transdermal patches with a short-acting product such as an inhalator, gum, lozenges or spray) for people with psychosis or schizophrenia or
- Bupropion for people with a diagnosis of schizophrenia (At the time of publication of the original guideline document [February 2014], bupropion was contraindicated in people with bipolar disorder. Therefore, it is not recommended for people with psychosis unless they have a diagnosis of schizophrenia) or
- Varenicline for people with psychosis or schizophrenia
  Warn people taking bupropion or varenicline that there is an increased risk of adverse neuropsychiatric symptoms and monitor them regularly, particularly in the first 2–3 weeks. [new 2014]

For people in inpatient settings who do not want to stop smoking, offer nicotine replacement therapy to help them to reduce or temporarily stop smoking. [new 2014]

Routinely monitor weight, and cardiovascular and metabolic indicators of morbidity in people with psychosis and schizophrenia. These should be audited in the annual team report. [new 2014]

Trusts should ensure compliance with quality standards on the monitoring and treatment of cardiovascular and metabolic disease in people with psychosis or schizophrenia through board-level performance indicators. [new 2014]

Comprehensive Services Provision

All teams providing services for people with psychosis or schizophrenia should offer a comprehensive range of interventions consistent with this guideline. [2009]

Support for Carers

Offer carers of people with psychosis or schizophrenia an assessment (provided by mental health services) of their own needs and discuss with them their strengths and views. Develop a care plan to address any identified needs, give a copy to the carer and their general practitioner (GP) and ensure it is reviewed annually. [new 2014]

Advise carers about their statutory right to a formal carer's assessment provided by social care services and explain how to access this. [new 2014]

Give carers written and verbal information in an accessible format about:

- Diagnosis and management of psychosis and schizophrenia
- Positive outcomes and recovery
- Types of support for carers
- Role of teams and services
- Getting help in a crisis
  When providing information, offer the carer support if necessary [new 2014]

As early as possible negotiate with service users and carers about how information about the service user will be shared. When discussing rights to confidentiality, emphasise the importance of sharing information about risks and the need for carers to understand the service user's perspective. Foster a collaborative approach that supports both service users and carers, and respects their individual needs and interdependence. [new 2014]

Review regularly how information is shared, especially if there are communication and collaboration difficulties between the service user and carer. [new 2014]

Include carers in decision-making if the service user agrees. [new 2014]

Offer a carer-focused education and support programme, which may be part of a family intervention for psychosis and schizophrenia, as early as possible to all carers. The intervention should:

- Be available as needed
- Have a positive message about recovery [new 2014]

Peer Support and Self-management

Consider peer support for people with psychosis or schizophrenia to help improve service user experience and quality of life. Peer support should be delivered by a trained peer support worker who has recovered from psychosis or schizophrenia and remains stable. Peer support workers

should receive support from their whole team, and support and mentorship from experienced peer workers. [new 2014]

Consider a manualised self-management programme delivered face-to-face with service users, as part of the treatment and management of psychosis or schizophrenia. [new 2014]

Peer support and self-management programmes should include information and advice about:

- Psychosis and schizophrenia
- Effective use of medication
- Identifying and managing symptoms
- Accessing mental health and other support services
- Coping with stress and other problems
- What to do in a crisis
- Building a social support network
- Preventing relapse and setting personal recovery goals [new 2014]

Preventing Psychosis

Referral from Primary Care

If a person is distressed, has a decline in social functioning and has:

- Transient or attenuated psychotic symptoms or
- Other experiences or behaviour suggestive of possible psychosis or
- A first-degree relative with psychosis or schizophrenia
  Refer them for assessment without delay to a specialist mental health service or an early intervention in psychosis service because they may be at increased risk of developing psychosis. [new 2014]

Specialist Assessment

A consultant psychiatrist or a trained specialist with experience in at-risk mental states should carry out the assessment. [new 2014]

Treatment Options to Prevent Psychosis

If a person is considered to be at increased risk of developing psychosis:

- Offer individual cognitive behavioural therapy (CBT) with or without family intervention and
- Offer interventions recommended in NICE guidance for people with any of the anxiety disorders, depression, emerging personality disorder or substance misuse. [new 2014]

Do not offer antipsychotic medication:

- To people considered to be at increased risk of developing psychosis or
- With the aim of decreasing the risk of or preventing psychosis [new 2014]

Monitoring and Follow-up

If, after treatment, the person continues to have symptoms, impaired functioning or is distressed, but a clear diagnosis of psychosis cannot be made, monitor the person regularly for changes in symptoms and functioning for up to 3 years using a structured and validated assessment tool. Determine the frequency and duration of monitoring by the:

- Severity and frequency of symptoms
- Level of impairment and/or distress and
- Degree of family disruption or concern [new 2014]

If a person asks to be discharged from the service, offer follow-up appointments and the option to self-refer in the future. Ask the person's GP to continue monitoring changes in their mental state. [new 2014]

First Episode Psychosis

Early Intervention in Psychosis Services

Early intervention in psychosis services should be accessible to all people with a first episode or first presentation of psychosis, irrespective of the person's age or the duration of untreated psychosis. [new 2014]

People presenting to early intervention in psychosis services should be assessed without delay. If the service cannot provide urgent intervention for people in a crisis, refer the person to a crisis resolution and home treatment team (with support from early intervention in psychosis services). Referral may be from primary or secondary care (including other community services) or a self- or carer-referral. [new 2014]

Early intervention in psychosis services should aim to provide a full range of pharmacological, psychological, social, occupational and educational interventions for people with psychosis, consistent with this guideline. [2014]

Consider extending the availability of early intervention in psychosis services beyond 3 years if the person has not made a stable recovery from psychosis or schizophrenia. [new 2014]

Primary Care

Do not start antipsychotic medication for a first presentation of sustained psychotic symptoms in primary care unless it is done in consultation with a consultant psychiatrist. [2009; amended 2014]

Assessment and Care Planning

Carry out a comprehensive multidisciplinary assessment of people with psychotic symptoms in secondary care. This should include assessment by a psychiatrist, a psychologist or a professional with expertise in the psychological treatment of people with psychosis or schizophrenia. The assessment should address the following domains:

- Psychiatric (mental health problems, risk of harm to self or others, alcohol consumption and prescribed and non-prescribed drug history)
- Medical, including medical history and full physical examination to identify physical illness (including organic brain disorders) and prescribed drug treatments that may result in psychosis
- Physical health and wellbeing (including weight, smoking, nutrition, physical activity and sexual health)
- Psychological and psychosocial, including social networks, relationships and history of trauma
- Developmental (social, cognitive and motor development and skills, including coexisting neurodevelopmental conditions)
- Social (accommodation, culture and ethnicity, leisure activities and recreation, and responsibilities for children or as a carer)
- Occupational and educational (attendance at college, educational attainment, employment and activities of daily living)
- Quality of life
- Economic status [2009; amended 2014]

Assess for post-traumatic stress disorder and other reactions to trauma because people with psychosis or schizophrenia are likely to have experienced previous adverse events or trauma associated with the development of the psychosis or as a result of the psychosis itself. For people who show signs of post-traumatic stress, follow the recommendations in Post-traumatic stress disorder (NICE clinical guideline 26). [new 2014]

Routinely monitor for other coexisting conditions, including depression, anxiety and substance misuse particularly in the early phases of treatment. [2009; amended 2014]

Write a care plan in collaboration with the service user as soon as possible following assessment, based on a psychiatric and psychological formulation, and a full assessment of their physical health. Send a copy of the care plan to the primary healthcare professional who made the referral and the service user. [2009; amended 2014]

For people who are unable to attend mainstream education, training or work, facilitate alternative educational or occupational activities according to their individual needs and capacity to engage with such activities, with an ultimate goal of returning to mainstream education, training or employment. [new 2014]

Treatment Options

For people with first episode psychosis offer:

- Oral antipsychotic medication in conjunction with
- Psychological interventions (family intervention and individual CBT) [new 2014]

Advise people who want to try psychological interventions alone that these are more effective when delivered in conjunction with antipsychotic medication. If the person still wants to try psychological interventions alone:

- Offer family intervention and CBT.
- Agree a time (1 month or less) to review treatment options, including introducing antipsychotic medication.
- Continue to monitor symptoms, distress, impairment and level of functioning (including education, training and employment) regularly. [new 2014]

If the person's symptoms and behaviour suggest an affective psychosis or disorder, including bipolar disorder and unipolar psychotic depression, follow the recommendations in the NICE guideline Bipolar disorder. The management of bipolar disorder in adults, children and adolescents, in primary and secondary care (NICE clinical guideline 38) or the NGC summary of the NICE guideline Depression. The treatment and management of depression in adults (NICE clinical guideline 90). [new 2014]

Choice of Antipsychotic Medication

The choice of antipsychotic medication should be made by the service user and healthcare professional together, taking into account the views of the carer if the service user agrees. Provide information and discuss the likely benefits and possible side effects of each drug, including:

- Metabolic (including weight gain and diabetes)
- Extrapyramidal (including akathisia, dyskinesia and dystonia)
- Cardiovascular (including prolonging the QT interval)
- Hormonal (including increasing plasma prolactin)
- Other (including unpleasant subjective experiences) [2009; amended 2014]

How to Use Antipsychotic Medication

Before starting antipsychotic medication, undertake and record the following baseline investigations:

- Weight (plotted on a chart)
- Waist circumference
- Pulse and blood pressure
- Fasting blood glucose, glycosylated haemoglobin (HbA_{1c}), blood lipid profile and prolactin levels
- Assessment of any movement disorders
- Assessment of nutritional status, diet and level of physical activity [new 2014]

Before starting antipsychotic medication, offer the person with psychosis or schizophrenia an electrocardiogram (ECG) if:

- Specified in the summary of product characteristics (SPC)
- A physical examination has identified specific cardiovascular risk (such as diagnosis of high blood pressure)
- There is a personal history of cardiovascular disease or
- The service user is being admitted as an inpatient [2009]

Treatment with antipsychotic medication should be considered an explicit individual therapeutic trial. Include the following:

- Discuss and record the side effects that the person is most willing to tolerate.
- Record the indications and expected benefits and risks of oral antipsychotic medication, and the expected time for a change in symptoms and appearance of side effects.
- At the start of treatment give a dose at the lower end of the licensed range and slowly titrate upwards within the dose range given in the British national formulary (BNF) or SPC.
- Justify and record reasons for dosages outside the range given in the BNF or SPC.
- Record the rationale for continuing, changing or stopping medication, and the effects of such changes.
- Carry out a trial of the medication at optimum dosage for 4–6 weeks. [2009; amended 2014]

Monitor and record the following regularly and systematically throughout treatment, but especially during titration:

- Response to treatment, including changes in symptoms and behaviour
- Side effects of treatment, taking into account overlap between certain side effects and clinical features of schizophrenia (for example, the overlap between akathisia and agitation or anxiety) and impact on functioning
- The emergence of movement disorders
- Weight, weekly for the first 6 weeks, then at 12 weeks, at 1 year and then annually (plotted on a chart)
- Waist circumference annually (plotted on a chart)

- Pulse and blood pressure at 12 weeks, at 1 year and then annually
- Fasting blood glucose, HbA_{1c} and blood lipid levels at 12 weeks, at 1 year and then annually
- Adherence
- Overall physical health [new 2014]

The secondary care team should maintain responsibility for monitoring service users' physical health and the effects of antipsychotic medication for at least the first 12 months or until the person's condition has stabilised, whichever is longer. Thereafter, the responsibility for this monitoring may be transferred to primary care under shared care arrangements. [new 2014]

Discuss any non-prescribed therapies the service user wishes to use (including complementary therapies) with the service user, and carer if appropriate. Discuss the safety and efficacy of the therapies, and possible interference with the therapeutic effects of prescribed medication and psychological treatments. [2009]

Discuss the use of alcohol, tobacco, prescription and non-prescription medication and illicit drugs with the service user, and carer if appropriate. Discuss their possible interference with the therapeutic effects of prescribed medication and psychological treatments. [2009]

'As required' (p.r.n.) prescriptions of antipsychotic medication should be made as described above. Review clinical indications, frequency of administration, therapeutic benefits and side effects each week or as appropriate. Check whether 'p.r.n.' prescriptions have led to a dosage above the maximum specified in the BNF or SPC. [2009]

Do not use a loading dose of antipsychotic medication (often referred to as 'rapid neuroleptisation'). [2009]

Do not initiate regular combined antipsychotic medication, except for short periods (for example, when changing medication). [2009]

If prescribing chlorpromazine, warn of its potential to cause skin photosensitivity. Advise using sunscreen if necessary. [2009]

How to Deliver Psychological Interventions

CBT should be delivered on a one-to-one basis over at least 16 planned sessions and:

- Follow a treatment manual (treatment manuals that have evidence for their efficacy from clinical trials are preferred) so that:
  - People can establish links between their thoughts, feelings or actions and their current or past symptoms, and/or functioning
  - The re-evaluation of people's perceptions, beliefs or reasoning relates to the target symptoms
- Also include at least one of the following components:
  - People monitoring their own thoughts, feelings or behaviours with respect to their symptoms or recurrence of symptoms
  - Promoting alternative ways of coping with the target symptom
  - Reducing distress
  - Improving functioning [2009]

Family intervention should:

- Include the person with psychosis or schizophrenia if practical
- Be carried out for between 3 months and 1 year
- Include at least 10 planned sessions
- Take account of the whole family's preference for either single-family intervention or multi-family group intervention
- Take account of the relationship between the main carer and the person with psychosis or schizophrenia
- Have a specific supportive, educational or treatment function and include negotiated problem solving or crisis management work [2009]

Monitoring and Reviewing Psychological Interventions

When providing psychological interventions, routinely and systematically monitor a range of outcomes across relevant areas, including service user satisfaction and, if appropriate, carer satisfaction. [2009]

Healthcare teams working with people with psychosis or schizophrenia should identify a lead healthcare professional within the team whose responsibility is to monitor and review:

- Access to and engagement with psychological interventions
- Decisions to offer psychological interventions and equality of access across different ethnic groups [2009]

Competencies for Delivering Psychological Interventions

Healthcare professionals providing psychological interventions should:

- Have an appropriate level of competence in delivering the intervention to people with psychosis or schizophrenia
- Be regularly supervised during psychological therapy by a competent therapist and supervisor [2009]

Trusts should provide access to training that equips healthcare professionals with the competencies required to deliver the psychological therapy interventions recommended in this guideline. [2009]

Subsequent Acute Episodes of Psychosis or Schizophrenia and Referral in Crisis

Service-level Interventions

Offer crisis resolution and home treatment teams as a first-line service to support people with psychosis or schizophrenia during an acute episode in the community if the severity of the episode, or the level of risk to self or others, exceeds the capacity of the early intervention in psychosis services or other community teams to effectively manage it. [new 2014]

Crisis resolution and home treatment teams should be the single point of entry to all other acute services in the community and in hospitals. [new 2014]

Consider acute community treatment within crisis resolution and home treatment teams before admission to an inpatient unit and as a means to enable timely discharge from inpatient units. Crisis houses or acute day facilities may be considered in addition to crisis resolution and home treatment teams depending on the person's preference and need. [new 2014]

If a person with psychosis or schizophrenia needs hospital care, think about the impact on the person, their carers and other family members, especially if the inpatient unit is a long way from where they live. If hospital admission is unavoidable, ensure that the setting is suitable for the person's age, gender and level of vulnerability, support their carers and follow the recommendations in Service user experience in adult mental health (NICE clinical guidance 136). [new 2014]

Treatment Options

For people with an acute exacerbation or recurrence of psychosis or schizophrenia, offer:

- Oral antipsychotic medication in conjunction with
- Psychological interventions (family intervention and individual CBT) [new 2014]

Pharmacological Interventions

For people with an acute exacerbation or recurrence of psychosis or schizophrenia, offer oral antipsychotic medication or review existing medication. The choice of drug should be influenced by the same criteria recommended for starting treatment. Take into account the clinical response and side effects of the service user's current and previous medication. [2009; amended 2014]

Psychological and Psychosocial Interventions

Offer CBT to all people with psychosis or schizophrenia. This can be started either during the acute phase or later, including in inpatient settings. [2009]

Offer family intervention to all families of people with psychosis or schizophrenia who live with or are in close contact with the service user. This can be started either during the acute phase or later, including in inpatient settings. [2009]

Consider offering arts therapies to all people with psychosis or schizophrenia, particularly for the alleviation of negative symptoms. This can be started either during the acute phase or later, including in inpatient settings. [2009]

Arts therapies should be provided by a Health and Care Professions Council registered arts therapist with previous experience of working with people with psychosis or schizophrenia. The intervention should be provided in groups unless difficulties with acceptability and access and engagement indicate otherwise. Arts therapies should combine psychotherapeutic techniques with activity aimed at promoting creative expression, which is often unstructured and led by the service user. Aims of arts therapies should include:

- Enabling people with psychosis or schizophrenia to experience themselves differently and to develop new ways of relating to others
- Helping people to express themselves and to organise their experience into a satisfying aesthetic form
- Helping people to accept and understand feelings that may have emerged during the creative process (including, in some cases, how they came to have these feelings) at a pace suited to the person [2009]

When psychological treatments, including arts therapies, are started in the acute phase (including in inpatient settings), the full course should be continued after discharge without unnecessary interruption. [2009]

Do not routinely offer counselling and supportive psychotherapy (as specific interventions) to people with psychosis or schizophrenia. However, take service user preferences into account, especially if other more efficacious psychological treatments, such as CBT, family intervention and arts therapies, are not available locally. [2009]

Do not offer adherence therapy (as a specific intervention) to people with psychosis or schizophrenia. [2009]

Do not routinely offer social skills training (as a specific intervention) to people with psychosis or schizophrenia. [2009]

Behaviour That Challenges

Occasionally people with psychosis or schizophrenia pose an immediate risk to themselves or others during an acute episode and may need rapid tranquillisation. The management of immediate risk should follow the relevant NICE guidelines. [2009]

Follow the recommendations in Violence: the short-term management of disturbed/violent behaviour in in-patient psychiatric settings and emergency departments (NICE clinical guideline 25) when facing imminent violence or when considering rapid tranquillisation. [2009]

After rapid tranquillisation, offer the person with psychosis or schizophrenia the opportunity to discuss their experiences. Provide them with a clear explanation of the decision to use urgent sedation. Record this in their notes. [2009]

Ensure that the person with psychosis or schizophrenia has the opportunity to write an account of their experience of rapid tranquillisation in their notes. [2009]

Follow the recommendations in Self-harm: the short-term physical and psychological management and secondary prevention of self-harm in primary and secondary care (NICE clinical guideline 16) when managing acts of self-harm in people with psychosis or schizophrenia. [2009]

Early Post-acute Period

After each acute episode, encourage people with psychosis or schizophrenia to write an account of their illness in their notes. [2009]

Healthcare professionals may consider using psychoanalytic and psychodynamic principles to help them understand the experiences of people with psychosis or schizophrenia and their interpersonal relationships. [2009]

Inform the service user that there is a high risk of relapse if they stop medication in the next 1–2 years. [2009]

If withdrawing antipsychotic medication, undertake gradually and monitor regularly for signs and symptoms of relapse. [2009]

After withdrawal from antipsychotic medication, continue monitoring for signs and symptoms of relapse for at least 2 years. [2009]

Promoting Recovery and Possible Future Care

General Principles

Continue treatment and care in early intervention in psychosis services or refer the person to a specialist integrated community-based team. This team should:

- Offer the full range of psychological, pharmacological, social and occupational interventions recommended in this guideline.
- Be competent to provide all interventions offered.
- Place emphasis on engagement rather than risk management.
- Provide treatment and care in the least restrictive and stigmatising environment possible and in an atmosphere of hope and optimism in line with Service user experience in adult mental health (NICE clinical guidance 136). [new 2014]

Consider intensive case management for people with psychosis or schizophrenia who are likely to disengage from treatment or services. [new 2014]

Review antipsychotic medication annually, including observed benefits and any side effects. [new 2014]

Return to Primary Care

Offer people with psychosis or schizophrenia whose symptoms have responded effectively to treatment and remain stable the option to return to primary care for further management. If a service user wishes to do this, record this in their notes and coordinate transfer of responsibilities through the care programme approach. [2009]

Primary Care

Monitoring Physical Health in Primary Care

Develop and use practice case registers to monitor the physical and mental health of people with psychosis or schizophrenia in primary care. [2009]

GPs and other primary healthcare professionals should monitor the physical health of people with psychosis or schizophrenia when responsibility for monitoring is transferred from secondary care, and then at least annually. The health check should be comprehensive, focusing on physical health problems that are common in people with psychosis and schizophrenia. Include all the checks recommended in and refer to relevant NICE guidance on monitoring for cardiovascular disease, diabetes, obesity and respiratory disease. A copy of the results should be sent to the care coordinator and psychiatrist, and put in the secondary care notes. [new 2014]

Identify people with psychosis or schizophrenia who have high blood pressure, have abnormal lipid levels, are obese or at risk of obesity, have diabetes or are at risk of diabetes (as indicated by abnormal blood glucose levels), or are physically inactive, at the earliest opportunity following relevant NICE guidance (see Lipid modification. Cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease [NICE clinical guideline 67], Preventing type 2 diabetes: risk identification and interventions for individuals at high risk [NICE public health guidance 38], Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children [NICE clinical guideline 43], the NGC summary of the NICE guideline Hypertension. Clinical management of primary hypertension in adults [NICE clinical guideline 127], Prevention of cardiovascular disease at the population level [NICE public health guidance 25], and Physical activity: brief advice for adults in primary care [NICE public health guidance 44]). [new 2014]

Treat people with psychosis or schizophrenia who have diabetes and/or cardiovascular disease in primary care according to the appropriate NICE guidance (for example, see Lipid modification. Cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease [NICE clinical guideline 67], Diagnosis and management of type 1 diabetes in children, young people and adults [NICE clinical guideline 15], Type 2 diabetes. The management of type 2 diabetes [NICE clinical guideline 66], and the NGC summary of the NICE guideline Type 2 diabetes. The management of type 2 diabetes [NICE clinical guideline 87]). [2009]

Healthcare professionals in secondary care should ensure, as part of the care programme approach, that people with psychosis or schizophrenia receive physical healthcare from primary care as described in the four preceding recommendations. [2009]

Relapse and Re-referral to Secondary Care

When a person with an established diagnosis of psychosis or schizophrenia presents with a suspected relapse (for example, with increased psychotic symptoms or a significant increase in the use of alcohol or other substances), primary healthcare professionals should refer to the crisis section of the care plan. Consider referral to the key clinician or care coordinator identified in the crisis plan. [2009]

For a person with psychosis or schizophrenia being cared for in primary care, consider referral to secondary care again if there is:

- Poor response to treatment
- Non-adherence to medication
- Intolerable side effects from medication
- Comorbid substance misuse
- Risk to self or others [2009]

When re-referring people with psychosis or schizophrenia to mental health services, take account of service user and carer requests, especially for:

- Review of the side effects of existing treatments
- Psychological treatments or other interventions [2009]

Transfer

When a person with psychosis or schizophrenia is planning to move to the catchment area of a different NHS trust, a meeting should be arranged

between the services involved and the service user to agree a transition plan before transfer. The person's current care plan should be sent to the new secondary care and primary care providers. [2009]

Psychological Interventions

Offer CBT to assist in promoting recovery in people with persisting positive and negative symptoms and for people in remission. Deliver CBT as described above. [2009]

Offer family intervention to families of people with psychosis or schizophrenia who live with or are in close contact with the service user. Deliver family intervention as described above. [2009]

Family intervention may be particularly useful for families of people with psychosis or schizophrenia who have:

- Recently relapsed or are at risk of relapse
- Persisting symptoms [2009]

Consider offering arts therapies to assist in promoting recovery, particularly in people with negative symptoms. [2009]

Pharmacological Interventions

The choice of drug should be influenced by the same criteria recommended for starting treatment. [2009]

Do not use targeted, intermittent dosage maintenance strategies (defined as the use of antipsychotic medication only during periods of incipient relapse or symptom exacerbation rather than continuously) routinely. However, consider them for people with psychosis or schizophrenia who are unwilling to accept a continuous maintenance regimen or if there is another contraindication to maintenance therapy, such as side-effect sensitivity. [2009]

Consider offering depot/long-acting injectable antipsychotic medication to people with psychosis or schizophrenia:

- Who would prefer such treatment after an acute episode
- Where avoiding covert non-adherence (either intentional or unintentional) to antipsychotic medication is a clinical priority within the treatment plan [2009]

Using Depot/Long-acting Injectable Antipsychotic Medication

When initiating depot/long-acting injectable antipsychotic medication:

- Take into account the service user's preferences and attitudes towards the mode of administration (regular intramuscular injections) and organisational procedures (for example, home visits and location of clinics).
- Take into account the same criteria recommended for the use of oral antipsychotic medication, particularly in relation to the risks and benefits of the drug regimen.
- Initially use a small test dose as set out in the BNF or SPC [2009]

Interventions for People Whose Illness Has Not Responded Adequately to Treatment

For people with schizophrenia whose illness has not responded adequately to pharmacological or psychological treatment:

- Review the diagnosis.
- Establish that there has been adherence to antipsychotic medication, prescribed at an adequate dose and for the correct duration.
- Review engagement with and use of psychological treatments and ensure that these have been offered according to this guideline. If family intervention has been undertaken suggest CBT; if CBT has been undertaken suggest family intervention for people in close contact with their families.
- Consider other causes of non-response, such as comorbid substance misuse (including alcohol), the concurrent use of other prescribed medication or physical illness. [2009]

Offer clozapine to people with schizophrenia whose illness has not responded adequately to treatment despite the sequential use of adequate doses of at least 2 different antipsychotic drugs. At least 1 of the drugs should be a non-clozapine second-generation antipsychotic. [2009]

For people with schizophrenia whose illness has not responded adequately to clozapine at an optimised dose, healthcare professionals should consider the recommendation above (including measuring therapeutic drug levels) before adding a second antipsychotic to augment treatment with clozapine. An adequate trial of such an augmentation may need to be up to 8–10 weeks. Choose a drug that does not compound the common side

effects of clozapine. [2009]

Employment, Education and Occupational Activities

Offer supported employment programmes to people with psychosis or schizophrenia who wish to find or return to work. Consider other occupational or educational activities, including pre vocational training, for people who are unable to work or unsuccessful in finding employment. [new 2014]

Mental health services should work in partnership with local stakeholders, including those representing black, Asian and minority ethnic groups, to enable people with mental health problems, including psychosis or schizophrenia, to stay in work or education and to access new employment (including self-employment), volunteering and educational opportunities. [2009; amended 2014]

Routinely record the daytime activities of people with psychosis or schizophrenia in their care plans, including occupational outcomes. [2009]

Clinical Algorithm(s)

A NICE pathway on psychosis and schizophrenia in adults: treatment and management is available from the National Institute for Health and Care Excellence (NICE) Web site .

Scope

Disease/Condition(s)

Psychosis and schizophrenia, including:

- Schizoaffective disorder
- Schizophreniform disorder
- Delusional disorder

Other Disease/Condition(s) Addressed

- Substance-related disorders
- Tobacco dependence

Guideline Category

Evaluation

Management

Treatment

Clinical Specialty

Family Practice

Internal Medicine

Psychiatry

Psychology

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Emergency Medical Technicians/Paramedics

Hospitals

Nurses

Occupational Therapists

Patients

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Social Workers

Guideline Objective(s)

- To update the 2009 guidelines on treatment and management of schizophrenia in primary and secondary care
- To improve access and engagement with treatment and services for people with psychosis and schizophrenia
- To evaluate the role of specific psychological, psychosocial and pharmacological interventions in the treatment of psychosis and schizophrenia
- To evaluate the role of psychological and psychosocial interventions in combination with pharmacological interventions in the treatment of psychosis and schizophrenia
- To evaluate the role of specific service-level interventions for people with psychosis and schizophrenia
- To integrate the above to provide best-practice advice on the care of individuals throughout the course of their psychosis and schizophrenia
- To promote the implementation of best clinical practice through the development of recommendations tailored to the requirements of the National Health Service (NHS) in England and Wales.

Target Population

Adults (18 years and older) with psychosis and schizophrenia with onset before 60 years

Note: This guideline does not address the specific treatment of young people under the age of 18 years, except those who are receiving treatment and support from early intervention in psychosis services; see the National Guideline Clearinghouse (NGC) summary of the National Institute for Health and Care Excellence (NICE) guideline Psychosis and schizophrenia in children and young people: recognition and management.

Interventions and Practices Considered

Assessment

1. Comprehensive multidisciplinary assessment, including a psychiatric, psychological and physical health assessment
2. Routine monitoring for other coexisting conditions, including depression and anxiety, comorbid conditions, including substance and alcohol misuse or physical illness

Management

1. Comprehensive service provision across all phases
2. Provision of information and mutual support to service users and carers
3. Culturally appropriate management
4. Healthy eating and physical activity programme
5. Smoking cessation (nicotine replacement therapy, bupropion, varenicline)
6. Routine monitoring of weight and cardiovascular and metabolic indicators of morbidity

7. Peer support and self-management
8. Referral to mental health services
9. Prevention of psychosis
    - Specialist assessment
    - Cognitive behavioural therapy (CBT) with or without family intervention
    - Management of anxiety disorders, depression, emerging personality disorder or substance misuse
    - Monitoring and follow-up
10. Management of first episode psychosis
    - Early multidisciplinary assessment
    - Care plan development
    - Oral antipsychotic medication
    - Psychological interventions (family intervention, CBT)
    - Competencies for delivering psychological interventions
11. Management of subsequent acute episodes of psychosis or schizophrenia
    - Service level interventions
    - Pharmacological intervention (oral antipsychotic agents)
    - Psychological and psychosocial interventions (CBT, family intervention, art therapies)
12. Management of behavior that challenges (rapid tranquillisation)
13. Management of relapse
14. Management of non-responders
15. Supported employment programmes
16. Service-level interventions
    - Crisis resolution and home treatment teams
    - Early intervention service (EIS)
    - Community mental health teams (CMHTs)
    - Acute day hospitals
    - Non-acute day hospital care
    - Assertive community treatment
17. Pharmacological interventions
    - Conventional antipsychotic agents (chlorpromazine and chlorpromazine equivalents, haloperidol)
    - Atypical antipsychotic agents (clozapine)
    - Oral versus depot/long-acting injectable antipsychotic medication
    - Administration and duration of administration
    - Baseline investigations prior to use and monitoring
18. Psychological treatments
    - CBT
    - Counselling and supportive therapy
    - Family interventions
    - Psychodynamic and psychoanalytic therapies
    - Arts therapy

Major Outcomes Considered

- Symptoms of psychosis (total symptoms, positive symptoms, negative symptoms)
- Mental state (total symptoms, anxiety and depression)
- Relapse rates
- Quality of life
- Treatment acceptability, engagement, and adherence
- Cognitive, psychosocial, and social functioning
- Cost effectiveness of the interventions
- Adverse effects of treatment
- Side effects of treatment
- Hospitalisation rates (admissions, days, readmission)
- Rate of involvement in the educational and vocational activities

- Carers' quality of life (mental health, burden of care, satisfaction with services)
- Rate and time of transition to psychosis
- Mental state (symptoms, depression, anxiety, mania)
- Mortality (including suicide)
- Global state
- Drop-out rate (for pharmacological studies)
- Physical health (metabolic disorder, body mass index [BMI]/ weight, levels of physical activity, smoking cessation or reduction)
- Empowerment/recovery
- Functional disability

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health (NCCMH) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Review Questions

Review (clinical) questions were used to guide the identification and interrogation of the evidence base relevant to the topic of the guideline. Before the first Guideline Development Group (GDG) meeting, draft review questions were prepared by NCCMH staff based on the scope (and an overview of existing guidelines), and discussed with the guideline Chair. The draft review questions were then discussed by the GDG at the first few meetings and amended as necessary. Where appropriate, the questions were refined once the evidence had been searched and, where necessary, sub-questions were generated. The final list of review questions and their protocols can be found in Appendix 6 in the full version of the original guideline document (see the "Availability of Companion Documents" field).

For questions about interventions, the PICO (Population, Intervention, Comparison and Outcome) framework was used to structure each question (see Table 1 in the full version of the original guideline document).

Clinical Review Methods

The aim of the clinical literature review was to systematically identify and synthesise relevant evidence from the literature in order to answer the specific review questions developed by the GDG. Thus, clinical practice recommendations are evidence-based, where possible and, if evidence is not available, informal consensus methods are used to try and reach general agreement between GDG members and the need for future research is specified.

The Search Process

Scoping Searches

A broad preliminary search of the literature was undertaken in August 2011 to obtain an overview of the issues likely to be covered by the scope, and to help define key areas. Searches were restricted to clinical guidelines, Health Technology Assessment (HTA) reports, key systematic reviews and randomised controlled trials (RCTs). A list of databases and websites searched can be found in Appendix 13 in the full version of the original guideline document.

Systematic Literature Searches

After the scope was finalised, a systematic search strategy was developed to locate as much relevant evidence as possible. The balance between sensitivity (the power to identify all studies on a particular topic) and specificity (the ability to exclude irrelevant studies from the results) was carefully considered, and a decision made to utilise a broad approach to searching to maximise retrieval of evidence to all parts of the guideline. Searches were restricted to certain study designs if specified in the review protocol, and conducted in the following databases:

- Australian Education Index (AEI)
- Applied Social Services Index and Abstracts (ASSIA)
- British Education Index (BEI)
- Cumulative Index to Nursing and Allied Health Literature (CINAHL)
- Cochrane Database of Abstracts of Reviews of Effects (DARE)
- Cochrane Database of Systematic Reviews (CDSR)
- CENTRAL
- Education Resources in Curriculum (ERIC)
- EMBASE
- HTA database (technology assessments)
- International Bibliography of Social Science (IBSS)
- MEDLINE/MEDLINE In-Process
- Psychological Information Database (PsycINFO)
- Social Services Abstracts (SSA)
- Sociological Abstracts

The search strategies were initially developed for MEDLINE before being translated for use in other databases/interfaces. Strategies were built up through a number of trial searches and discussions of the results of the searches with the review team and GDG to ensure that all possible relevant search terms were covered. The search terms for each search are set out in full in Appendix 13 in the full version of the original guideline document.

Reference Management

Citations from each search were downloaded into reference management software and duplicates removed. Records were then screened against the eligibility criteria of the reviews before being appraised for methodological quality (see below). The unfiltered search results were saved and retained for future potential re-analysis to help keep the process both replicable and transparent.

Search Filters

To aid retrieval of relevant and sound studies, filters were used to limit a number of searches to systematic reviews, RCTs and qualitative studies. The search filters for systematic reviews and RCTs are adaptations of filters designed by the Centre for Reviews and Dissemination (CRD) and the Health Information Research Unit of McMaster University, Ontario. The qualitative research filter was developed in-house. Each filter comprises index terms relating to the study type(s) and associated text-words for the methodological description of the design(s).

Date and Language Restrictions

Systematic database searches were initially conducted in June 2012 up to the most recent searchable date. Search updates were generated on a 6-monthly basis, with the final re-runs carried out in June 2013 to October 2013 ahead of the guideline consultation. After this point, studies were only included if they were judged by the GDG to be exceptional (for example, if the evidence was likely to change a recommendation).

Although no language restrictions were applied at the searching stage, foreign language papers were not requested or reviewed, unless they were of particular importance to a review question.

Date restrictions were not applied, except for updates of systematic reviews which were limited to the date the last searches were conducted. Searches for systematic reviews and qualitative research were also restricted to a shorter time frame as older research was thought to be less useful.

Other Search Methods

Other search methods involved: (a) scanning the reference lists of all eligible publications (systematic reviews, stakeholder evidence and included studies) for more published reports and citations of unpublished research; (b) sending lists of studies meeting the inclusion criteria to subject experts (identified through searches and the GDG) and asking them to check the lists for completeness, and to provide information of any published or

unpublished research for consideration (see Appendix 5 in the full version of the original guideline document); (c) checking the tables of contents of key journals for studies that might have been missed by the database and reference list searches; (d) tracking key papers in the Science Citation Index (prospectively) over time for further useful references; (e) conducting searches in ClinicalTrials.gov for unpublished trial reports; (f) contacting included study authors for unpublished or incomplete datasets. Searches conducted for existing NICE guidelines were updated where necessary. Other relevant guidelines were assessed for quality using the Assessment of Guidelines Research and Evaluation (AGREE) instrument (AGREE Collaboration, 2003). The evidence base underlying high-quality existing guidelines was utilised and updated as appropriate.

Full details of the search strategies and filters used for the systematic review of clinical evidence are provided in Appendix 13 in the full version of the original guideline document.

Study Selection and Assessment of Methodological Quality

All primary-level studies included after the first scan of citations were acquired in full and re-evaluated for eligibility at the time they were being entered into the study information database. More specific eligibility criteria were developed for each review question and are described in the relevant clinical evidence chapters. Eligible systematic reviews and primary-level studies were critically appraised for methodological quality (risk of bias) using a checklist (see The Guidelines Manual [NICE, 2012] for templates [see the "Availability of Companion Documents" field]). The eligibility of each study was confirmed by at least one member of the GDG.

For some review questions, it was necessary to prioritise the evidence with respect to the UK context (that is, external validity). To make this process explicit, the GDG took into account the following factors when assessing the evidence:

- Participant factors (for example, gender, age and ethnicity)
- Provider factors (for example, model fidelity, the conditions under which the intervention was performed and the availability of experienced staff to undertake the procedure)
- Cultural factors (for example, differences in standard care and differences in the welfare system)

It was the responsibility of the GDG to decide which prioritisation factors were relevant to each review question in light of the UK context.

Unpublished Evidence

Stakeholders, authors and principal investigators were approached for unpublished evidence (see Appendix 5 in the full version of the original guideline document). The GDG used a number of criteria when deciding whether or not to accept unpublished data. First, the evidence must have been accompanied by a trial report containing sufficient detail to properly assess risk of bias. Second, the evidence must have been submitted with the understanding that data from the study and a summary of the study's characteristics would be published in the full version of the original guideline document. Therefore, in most circumstances the GDG did not accept evidence submitted 'in confidence'. However, the GDG recognised that unpublished evidence submitted by investigators might later be retracted by those investigators if the inclusion of such data would jeopardise publication of their research.

Experience of Care

Reviews were sought of qualitative studies that used relevant first-hand experiences of carers. The experience of service users with mental health problems has been reviewed in *Service User Experience in Adult Mental Health* (NCCMH, 2012 [full guideline {see the "Availability of Companion Documents" field}]). Therefore, for this guideline, only a review of the carer experience of care was conducted. A particular outcome was not specified by the GDG. Instead, the review was concerned with narrative data that highlighted the experience of care. Where the search did not generate an adequate body of literature, a further search for primary qualitative studies was undertaken.

Health Economics Methods

The aim of the health economics was to contribute to the guideline's development by providing evidence on the cost effectiveness of interventions for adults with psychosis and schizophrenia covered in the guideline. This was achieved by:

- Systematic literature review of existing economic evidence
- Decision-analytic economic modelling

Systematic reviews of economic literature were conducted in all areas covered in the guideline. Economic modelling was undertaken in areas with likely major resource implications, where the current extent of uncertainty over cost effectiveness was significant and economic analysis was expected to reduce this uncertainty, in accordance with The Guidelines Manual (NICE, 2012 [see the "Availability of Companion Documents" field]). Prioritisation of areas for economic modelling was a joint decision between the Health Economist and the GDG. The rationale for prioritising review questions for economic modelling was set out in an economic plan agreed between NICE, the GDG, the Health Economist and

the other members of the technical team. For the 2014 guideline, the cost effectiveness of vocational rehabilitation for people with psychosis and schizophrenia was selected as a key issue that was addressed by economic modelling.

In addition, literature on the health-related quality of life of people with psychosis and schizophrenia was systematically searched to identify studies reporting appropriate utility scores that could be utilised in a cost-utility analysis.

Search Strategy for Economic Evidence

Scoping Searches

A broad preliminary search of the literature was undertaken in August 2011to obtain an overview of the issues likely to be covered by the scope, and help define key areas. Searches were restricted to economic studies and HTA reports, and conducted in the following databases:

- EMBASE
- MEDLINE/MEDLINE In-Process
- HTA database (technology assessments)
- NHS Economic Evaluation Database (NHS EED)

Any relevant economic evidence arising from the clinical scoping searches was also made available to the health economist during the same period.

Systematic Literature Searches

After the scope was finalised, a systematic search strategy was developed to locate all the relevant evidence. Searches were restricted to economic studies and health technology assessment reports, and conducted in the following databases:

- EMBASE
- HTA database (technology assessments)
- MEDLINE/MEDLINE In-Process
- NHS EED
- PsycINFO

Any relevant economic evidence arising from the clinical searches was also made available to the health economist during the same period.

The search strategies were initially developed for MEDLINE before being translated for use in other databases/interfaces. Strategies were built up through a number of trial searches, and discussions of the results of the searches with the review team and GDG to ensure that all possible relevant search terms were covered. In order to assure comprehensive coverage, search terms for the population were kept purposely broad to help counter dissimilarities in database indexing practices and thesaurus terms, and imprecise reporting of study populations by authors in the titles and abstracts of records.

For standard mainstream bibliographic databases (EMBASE, MEDLINE and PsycINFO) search terms were combined with a search filter for health economic studies. For searches generated in topic-specific databases (HTA, NHS EED) search terms were used without a filter. The search terms are set out in full in Appendix 14 in the full version of the original guideline document.

Reference Management

Citations from each search were downloaded into reference management software and duplicates removed. Records were then screened against the inclusion criteria of the reviews before being quality appraised. The unfiltered search results were saved and retained for future potential re-analysis to help keep the process both replicable and transparent.

Search Filters

The search filter for health economics is an adaptation of a pre-tested strategy designed by CRD (2007). The search filter is designed to retrieve records of economic evidence (including full and partial economic evaluations) from the vast amount of literature indexed to major medical databases such as MEDLINE. The filter, which comprises a combination of controlled vocabulary and free-text retrieval methods, maximises sensitivity (or recall) to ensure that as many potentially relevant records as possible are retrieved from a search. A full description of the filter is provided in Appendix 14 in the full version of the original guideline document.

Date and Language Restrictions

Systematic database searches were initially conducted in June 2012 up to the most recent searchable date. Search updates were generated on a 6-monthly basis, with the final re-runs carried out in June 2013 ahead of the guideline consultation. After this point, studies were included only if they

were judged by the GDG to be exceptional (for example, the evidence was likely to change a recommendation).

Although no language restrictions were applied at the searching stage, foreign language papers were not requested or reviewed, unless they were of particular importance to an area under review. In order to obtain data relevant to current healthcare settings and costs, all the searches were restricted to research published from 1996 onwards, except for an update search of an existing review from Chapter 5, which was limited from the date the last search was conducted.

Other Search Methods

Other search methods involved scanning the reference lists of all eligible publications (systematic reviews, stakeholder evidence and included studies from the economic and clinical reviews) to identify further studies for consideration.

Full details of the search strategies and filter used for the systematic review of health economic evidence are provided in Appendix 14 in the full version of the original guideline document.

Inclusion Criteria for Economic Studies

The following inclusion criteria were applied to select studies identified by the economic searches for further consideration:

1. Only English language papers were considered.
2. Only studies from Organisation for Economic Co-operation and Development countries were included, as the aim of the review was to identify economic information transferable to the UK context.
3. Studies published from 2002 onwards were included. This date restriction was imposed to obtain data relevant to current healthcare settings and costs.
4. Selection criteria based on types of clinical conditions and service users as well as interventions assessed were identical to the clinical literature review.
5. Studies were included provided that sufficient details regarding methods and results were available to enable the methodological quality of the study to be assessed, and provided that the study's data and results were extractable. Poster presentations, abstracts, dissertations, commentaries and discussion publications were excluded.
6. Full economic evaluations that compared two or more relevant interventions and considered both costs and consequences, as well as costing analyses comparing only costs between two or more interventions, were included in the review.
7. Economic studies were included if they used clinical effectiveness data from an RCT, a prospective cohort study, pre- and post-observational studies or a systematic review and meta-analysis of clinical studies. Studies that utilised clinical effectiveness parameters based mainly on expert opinion or assumptions were excluded from the review.
8. Studies were included only if the examined interventions and populations under consideration were clearly described.
9. Studies that adopted a very narrow perspective, ignoring major categories of costs relevant to the NHS, were excluded; for example studies that estimated exclusively hospitalisation costs were considered non-informative to the guideline development process. Also, studies that considered other types of costs, except direct healthcare costs, were excluded from this review.

Applicability and Quality Criteria for Economic Studies

All economic papers eligible for inclusion were appraised for their applicability and quality using the methodology checklist for economic evaluations recommended by NICE (NICE, 2012 [see the "Availability of Companion Documents" field]). The methodology checklist for economic evaluations was also applied to the economic models developed specifically for this guideline. All studies that fully or partially met the applicability and quality criteria described in the methodology checklist were considered during the guideline development process, along with the results of the economic modelling conducted specifically for this guideline. The completed methodology checklists for all economic evaluations considered in the guideline are provided in Appendix 18 in the full version of the original guideline document.

Presentation of Economic Evidence

The economic evidence considered in the guideline is provided in the respective evidence chapters, following presentation of the relevant clinical evidence. The references to included studies and the respective evidence tables with the study characteristics and results are provided in Appendix 19 in the full version of the original guideline document. Methods and results of economic modelling undertaken alongside the guideline development process are presented in the relevant evidence chapters. Characteristics and results of all economic studies considered during the guideline development process (including modelling studies conducted for this guideline) are summarised in economic evidence profiles accompanying respective Grading of Recommendations Assessment, Development and Evaluation (GRADE) clinical evidence profiles in Appendix 17 in the full version of the original guideline document.

Results of the Systematic Search of Economic Literature

The titles of all studies identified by the systematic search of the literature were screened for their relevance to the topic (that is, economic issues and information on health-related quality of life in people with psychosis and schizophrenia). References that were clearly not relevant were excluded first. The abstracts of all potentially relevant studies (90 references) were then assessed against the inclusion criteria for economic evaluations by the health economist. Full texts of the studies potentially meeting the inclusion criteria (including those for which eligibility was not clear from the abstract) were obtained. Studies that did not meet the inclusion criteria, were duplicates, were secondary publications of one study, or had been updated in more recent publications were subsequently excluded. Economic evaluations eligible for inclusion (47 references) were then appraised for their applicability and quality using the methodology checklist for economic evaluations. Finally, 21 economic studies identified by the systematic literature search, as well as two studies that were unpublished at the time of the guideline development and were identified through consultation with the GDG, met fully or partially the applicability and quality criteria for economic studies, and were thus considered at formulation of the guideline recommendations.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Overall Quality of Outcome Evidence in Grading of Recommendations Assessment, Development and Evaluation (GRADE)

Level	Description
High	Further research is very unlikely to change confidence in the estimate of effect.
Moderate	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.
Low	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.
Very Low	Any estimate of effect is very uncertain.

Methods Used to Analyze the Evidence

Meta-Analysis of Randomized Controlled Trials

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health (NCCMH) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

Data Extraction

Quantitative Analysis

Study characteristics, aspects of methodological quality, and outcome data were extracted from all eligible studies, using Review Manager 5.1 (The Cochrane Collaboration, 2011) and an Excel-based form (see Appendix 7 in the full version of the original guideline document [see

"Availability of Companion Documents" field]).

In most circumstances, for a given outcome (continuous and dichotomous), where more than 50% of the number randomised to any group were missing or incomplete, the study results were excluded from the analysis (except for the outcome 'leaving the study early', in which case, the denominator was the number randomised).

Where there were limited data for a particular review, the 50% rule was not applied. In these circumstances the evidence was downgraded. Where possible, outcome data from an intention-to-treat analysis (ITT) (that is, a 'once-randomised-always-analyse' basis) were used. Where ITT had not been used or there were missing data, the effect size for dichotomous outcomes were recalculated using best-case and worse-case scenarios. Where conclusions varied between scenarios, the evidence was downgraded.

Where some of the studies failed to report standard deviations (for a continuous outcome), and where an estimate of the variance could not be computed from other reported data or obtained from the study author, the following approach was taken (based on the approach suggested by Furukawa and colleagues [2006]). When the number of studies with missing standard deviations was less than one-third and when the total number of studies was at least ten, the pooled standard deviation was imputed (calculated from all the other studies in the same meta-analysis that used the same version of the outcome measure). In this case, the appropriateness of the imputation was made by comparing the standardised mean differences (SMDs) of those trials that had reported standard deviations against the hypothetical SMDs of the same trials based on the imputed standard deviations. If they converged, the meta-analytical results were considered to be reliable.

When the conditions above could not be met, standard deviations were taken from another related systematic review (if available). In this case, the results were considered to be less reliable.

The meta-analysis of survival data, such as time to any mood episode, was based on log hazard ratios and standard errors. Since individual participant data were not available in included studies, hazard ratios and standard errors calculated from a Cox proportional hazard model were extracted. Where necessary, standard errors were calculated from confidence intervals (CIs) or p value according to standard formulae (see the Cochrane Reviewers' Handbook 5.1.0 [Higgins & Green]). Data were summarised using the generic inverse variance method using Review Manager.

Consultation with another reviewer or members of the Guideline Development Group (GDG) was used to overcome difficulties with coding. Data from studies included in existing systematic reviews were extracted independently by one reviewer and cross-checked with the existing dataset. Where possible, two independent reviewers extracted data from new studies. Where double data extraction was not possible, data extracted by one reviewer was checked by the second reviewer. Disagreements were resolved through discussion. Where consensus could not be reached, a third reviewer or GDG members resolved the disagreement. Masked assessment (that is, blind to the journal from which the article comes, the authors, the institution and the magnitude of the effect) was not used since it is unclear that doing so reduces bias.

Qualitative Analysis

After transcripts/reviews or primary studies of carer experience were identified, each was read and re-read and sections of the text were collected under different headings. Under the broad headings, specific emergent themes were identified and coded by two researchers working independently. Overlapping themes and themes with the highest frequency count across all testimonies were extracted and regrouped. The findings from this qualitative analysis can be found in Chapter 4 in the full version of the original guideline document.

The quality of the included studies was assessed using the National Institute for Health and Care Excellence (NICE) quality checklist for qualitative literature (see The Guidelines Manual [NICE, 2012] for templates [see "Availability of Companion Documents" field]). The domains of this checklist (including the theoretical approach, study design, validity and data analysis) aim to provide a transparent description of methods in order to assess the reliability and transferability of the findings of primary studies to their setting. As there is currently no accepted gold standard of assessing study quality, studies were not excluded or weighted on the basis of quality.

Evidence Synthesis

The method used to synthesize evidence depended on the review question and availability and type of evidence (see Appendix 6 in the full version of the original guideline document for full details). Briefly, for questions about the psychometric properties of instruments, reliability, validity and clinical utility were synthesized narratively based on accepted criteria. For questions about test accuracy, bivariate test accuracy meta-analysis was conducted where appropriate. For questions about the effectiveness of interventions, standard meta-analysis or network meta-analysis was used where appropriate, otherwise narrative methods were used with clinical advice from the GDG. In the absence of high-quality research, an informal consensus process was used.

Grading the Quality of Evidence

For questions about the effectiveness of interventions, the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach was used to grade the quality of evidence for each outcome. For questions about the experience of care and the organisation and delivery of care, methodology checklists (see Section 3.5.1 in the full version of the original guideline document) were used to assess the risk of bias, and this information was taken into account when interpreting the evidence. The technical team produced GRADE evidence profiles (see below) using GRADE profiler (GRADEpro) software (Version 3.6), following advice set out in the GRADE handbook. Those doing GRADE ratings were trained, and calibration exercises were used to improve reliability.

Evidence Profiles

A GRADE evidence profile was used to summarise both the quality of the evidence and the results of the evidence synthesis for each 'critical' and 'important' outcome (see Table 3 in the full version of the original guideline document [see the "Availability of Companion Documents" field] for an example of an evidence profile). The GRADE approach is based on a sequential assessment of the quality of evidence, followed by judgment about the balance between desirable and undesirable effects, and subsequent decision about the strength of a recommendation.

Within the GRADE approach to grading the quality of evidence, the following is used as a starting point:

- Randomised controlled trials (RCTs) without important limitations provide high quality evidence
- Observational studies without special strengths or important limitations provide low quality evidence

For each outcome, quality may be reduced depending on five factors: methodological limitations, inconsistency, indirectness, imprecision and publication bias. For the purposes of the guideline, each factor was evaluated using criteria provided in Table 4 in the full version of the original guideline document.

For observational studies without any reasons for down-grading, the quality may be up-graded if there is a large effect, all plausible confounding would reduce the demonstrated effect (or increase the effect if no effect was observed), or there is evidence of a dose-response gradient (details would be provided under the 'other' column).

Each evidence profile includes a summary of findings: number of participants included in each group, an estimate of the magnitude of the effect, and the overall quality of the evidence for each outcome. Under the GRADE approach, the overall quality for each outcome is categorised into one of four groups (high, moderate, low, very low).

Presenting Evidence to the Guideline Development Group

Study characteristics tables and, where appropriate, forest plots generated with Review Manager Version 5.2 and GRADE summary of findings tables (see below) were presented to the GDG. Where meta-analysis was not appropriate and/or possible, the reported results from each primary-level study were included in the study characteristics table. The range of effect estimates were included in the GRADE profile, and where appropriate, described narratively.

Summary of Findings Tables

Summary of findings tables generated from GRADEpro were used to summarise the evidence for each outcome and the quality of that evidence (see Table 5 in the full version of the original guideline document). The tables provide illustrative comparative risks, especially useful when the baseline risk varies for different groups within the population.

Extrapolation

When answering review questions, if there is no direct evidence from a primary dataset (defined as a dataset which contains evidence on the population and intervention under review) based on the initial search for evidence it may be appropriate to extrapolate from another dataset. In this situation, the following principles were used to determine when to extrapolate:

- A primary dataset is absent, of low quality or is judged to be not relevant to the review question under consideration
- A review question is deemed by the GDG to be important, such that in the absence of direct evidence, other data sources should be considered
- Non-primary data source(s) is in the view of the GDG available, which may inform the review question

When the decision to extrapolate was made, the following principles were used to inform the choice of the non-primary dataset:

- The populations (usually in relation to the specified diagnosis or problem which characterises the population) under consideration share some common characteristic but differ in other ways, such as age, gender or in the nature of the disorder (for example, a common behavioural problem; acute versus chronic presentations of the same disorder); and

- The interventions under consideration in the view of the GDG have one or more of the following characteristics:
    - Share a common mode of action (for example, the pharmacodynamics of drug; a common psychological model of change - operant conditioning)
    - Be feasible to deliver in both populations (for example, in terms of the required skills or the demands of the health care system)
    - Share common side effects/harms in both populations; and
- The context or comparator involved in the evaluation of the different datasets shares some common elements which support extrapolation; and
- The outcomes involved in the evaluation of the different datasets shares some common elements which support extrapolation (for example, improved mood or a reduction in challenging behaviour).

When the choice of the non-primary dataset was made, the following principles were used to guide the application of extrapolation:

- The GDG should first consider the need for extrapolation through a review of the relevant primary dataset and be guided in these decisions by the principles for the use of extrapolation
- In all areas of extrapolation datasets should be assessed against the principles for determining the choice of datasets. In general the criteria in the four principles set out above for determining the choice should be met
- In deciding on the use of extrapolation, the GDG will have to determine if the extrapolation can be held to be reasonable, including ensuring that:
    - The reasoning behind the decision can be justified by the clinical need for a recommendation to be made
    - The absence of other more direct evidence, and by the relevance of the potential dataset to the review question can be established
    - The reasoning and the method adopted is clearly set out in the relevant section of the guideline.

Method Used to Answer a Review Question in the Absence of Appropriately Designed, High-Quality Research

In the absence of appropriately designed, high-quality research (including indirect evidence where it would be appropriate to use extrapolation), an informal consensus process was adopted. The process involved a group discussion of what is known about the issues. The views of GDG were synthesised narratively by a member of the review team, and circulated after the meeting. Feedback was used to revise the text, which was then included in the appropriate evidence review chapter.

Methods Used to Formulate the Recommendations

Expert Consensus

Informal Consensus

Description of Methods Used to Formulate the Recommendations

Note from the National Guideline Clearinghouse (NGC): This guideline was developed by the National Collaborating Centre for Mental Health (NCCMH) on behalf of the National Institute for Health and Care Excellence (NICE). See the "Availability of Companion Documents" field for the full version of this guidance.

The Guideline Development Group

During the consultation phase, members of the Guideline Development Group (GDG) were appointed by an open recruitment process. GDG membership consisted of: professionals in psychiatry, clinical psychology, nursing, social work, and general practice; academic experts in psychiatry and psychology; and service users, carers and representatives from service user and carer organisations. The guideline development process was supported by staff from the NCCMH, who undertook the clinical and health economic literature searches, reviewed and presented the evidence to the GDG, managed the process, and contributed to drafting the guideline.

Guideline Development Group Meetings

Eleven GDG meetings were held between Tuesday 28 February 2012 and Tuesday 15 October 2013. During each day-long GDG meeting, in a plenary session, review questions and clinical and economic evidence were reviewed and assessed, and recommendations formulated. At each meeting, all GDG members declared any potential conflicts of interest (see Appendix 2 in the full version of the original guideline document [see the "Availability of Companion Documents" field]), and service user and carer concerns were routinely discussed as a standing agenda item.

Service Users and Carers

Individuals with direct experience of services gave an integral service-user and carer focus to the GDG and the guideline. The GDG included two service users and a carer representative of a national service user group. They contributed as full GDG members to writing the review questions, providing advice on outcomes most relevant to service users and carers, helping to ensure that the evidence addressed their views and preferences, highlighting sensitive issues and terminology relevant to the guideline, and bringing service user research to the attention of the GDG. In drafting the guideline, there was regular communication with the NCCMH team to develop the chapter on carer experience and they contributed to writing the guideline's introduction and identified recommendations from the service user and carer perspective.

Special Advisors

Special advisors, who had specific expertise in one or more aspects of treatment and management relevant to the guideline, assisted the GDG, commenting on specific aspects of the developing guideline and making presentations to the GDG. Appendix 4a in the full version of the original guideline document lists those who agreed to act as special advisors.

National and International Experts

National and international experts in the area under review were identified through the literature search and through the experience of the GDG members. These experts were contacted to identify unpublished or soon-to-be published studies, to ensure that up-to-date evidence was included in the development of the guideline. They informed the GDG about completed trials at the pre-publication stage, systematic reviews in the process of being published, studies relating to the cost effectiveness of treatment and trial data if the GDG could be provided with full access to the complete trial report. Appendix 5 in the full version of the original guideline document lists researchers who were contacted.

Linking Evidence to Recommendations

Once the clinical and health economic evidence was summarised, the GDG drafted the recommendations. In making recommendations, the GDG took into account the trade-off between the benefits and harms of the intervention/instrument, as well as other important factors, such as economic considerations, values of the GDG and society, the requirements to prevent discrimination and to promote equality (see NICE's equality scheme), and the GDG's awareness of practical issues (NICE, 2012 [see the "Availability of Companion Documents" field]).

Finally, to show clearly how the GDG moved from the evidence to the recommendations, each chapter has a section called 'linking evidence to recommendations'. Underpinning this section is the concept of the 'strength' of a recommendation (Schünemann et al., 2003). This takes into account the quality of the evidence but is conceptually different. Some recommendations are 'strong' in that the GDG believes that the vast majority of healthcare professionals and service users would choose a particular intervention if they considered the evidence in the same way that the GDG has. This is generally the case if the benefits clearly outweigh the harms for most people and the intervention is likely to be cost effective. However, there is often a closer balance between benefits and harms, and some service users would not choose an intervention whereas others would. This may happen, for example, if some service users are particularly averse to some side effect and others are not. In these circumstances the recommendation is generally weaker, although it may be possible to make stronger recommendations about specific groups of service users. The strength of each recommendation is reflected in the wording of the recommendation, rather than by using ratings, labels or symbols.

Where the GDG identified areas in which there are uncertainties or where robust evidence was lacking, they developed research recommendations. Those that were identified as 'high priority' were developed further in the NICE version of the guideline, and presented in Appendix 10 in the full version of the original guideline document.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations

Some recommendations can be made with more certainty than others. The Guideline Development Group (GDG) makes a recommendation based on the trade-off between the benefits and harms of an intervention, taking into account the quality of the underpinning evidence. For some interventions, the GDG is confident that, given the information it has looked at, most patients would choose the intervention. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

Interventions That Must (or Must Not) Be Used

The GDG usually uses 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally the GDG uses 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Interventions That Should (or Should Not) Be Used – a 'Strong' Recommendation

The GDG uses 'offer' (and similar words such as 'refer' or 'advise') when confident that, for the vast majority of patients, an intervention will do more good than harm, and be cost effective. Similar forms of words (for example, 'Do not offer…') are used when the GDG is confident that an intervention will not be of benefit for most patients.

Interventions That Could Be Used

The GDG uses 'consider' when confident that an intervention will do more good than harm for most patients, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the patient's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the patient.

Note: The National Institute for Health and Care Excellence (NICE) began using this approach to denote the strength of recommendations in guidelines that started development after publication of the 2009 version of 'The guidelines manual' (January 2009). This does not apply to any recommendations ending [2009]. In particular, for recommendations labelled [2009] the word 'consider' may not necessarily be used to denote the strength of the recommendation.

Cost Analysis

Systematic reviews of economic literature were conducted in all areas covered in the guideline. Economic modelling was undertaken in areas with likely major resource implications, where the current extent of uncertainty over cost effectiveness was significant and economic analysis was expected to reduce this uncertainty, in accordance with The Guidelines Manual (National Institute for Health and Care Excellence [NICE], 2012 [see the "Availability of Companion Documents" field]). Prioritisation of areas for economic modelling was a joint decision between the Health Economist and the Guideline Development Group (GDG). The rationale for prioritising review questions for economic modelling was set out in an economic plan agreed between NICE, the GDG, the Health Economist and the other members of the technical team. For the 2014 guideline, the cost effectiveness of vocational rehabilitation for people with psychosis and schizophrenia was selected as a key issue that was addressed by economic modelling.

In addition, literature on the health-related quality of life of people with psychosis and schizophrenia was systematically searched to identify studies reporting appropriate utility scores that could be utilised in a cost-utility analysis.

See the appendices in the full version of the original guideline document (see the "Availability of Companion Documents" field) for more information.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Validation of the Guideline

Registered stakeholders had an opportunity to comment on the draft guideline, which was posted on the National Institute for Health and Care Excellence (NICE) website during the consultation period. Following the consultation, all comments from stakeholders and experts (see Appendix 4B in the full version of the original guideline document [see the "Availability of Companion Documents" field]) were responded to, and the guideline updated as appropriate. NICE also reviewed the guideline and checked that stakeholders' comments had been addressed.

Following the consultation period, the Guideline Development Group (GDG) finalised the recommendations and the National Collaborating Centre for Mental Health (NCCMH) produced the final documents. These were then submitted to NICE for a quality assurance check. Any errors were corrected by the NCCMH, then the guideline was formally approved by NICE and issued as guidance to the National Health Service (NHS) in England and Wales.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate management of individuals with schizophrenia

See the "Trade-off between clinical benefits and harms sections in the full version of the original guideline document (see the "Availability of Companion Documents" field) for additional details about benefits of specific interventions.

Potential Harms

- All antipsychotic agents are associated with side effects but the profile and clinical significance of these varies among individuals and drugs. These may include extrapyramidal symptoms (EPS) (such as parkinsonism, acute dystonic reactions, akathisia and tardive dyskinesia), autonomic effects (such as blurring of vision, increased intra-ocular pressure, dry mouth and eyes, constipation and urinary retention), increased prolactin levels, seizures, sedation and weight gain. Cardiac safety is also an issue because several antipsychotics have been shown to prolong ventricular repolarisation, which is associated with an increased risk of ventricular arrhythmias.
- Individuals with schizophrenia consider the most troublesome side effects to be EPS, weight gain, sexual dysfunction and sedation. EPS are easily recognised, but their occurrence cannot be predicted accurately and they are related to poor prognosis. Akathisia is also often missed or misdiagnosed as agitation. Of particular concern is tardive dyskinesia (orofacial and trunk movements), which may not be evident immediately, is resistant to treatment, may be persistent, and may worsen on treatment withdrawal. Sexual dysfunction can be a problem, sometimes linked to drug-induced hyperprolactinaemia; it is likely to be an underreported side effect of antipsychotic treatment, as discussion of this issue is often difficult to initiate.
- As the various antipsychotic drugs possess different relative affinities for each receptor type, each drug will have its own specific profile of side effects.
- If prescribing chlorpromazine, warn of its potential to cause skin photosensitivity. Advise using sunscreen if necessary.
- Warn people taking bupropion or varenicline that there is an increased risk of adverse neuropsychiatric symptoms and monitor them regularly, particularly in the first 2-3 weeks.
- The harms associated with psychosocial interventions include stigma and the fear of becoming psychotic.
- As clozapine is associated with severe and potentially life-threatening side effects, particularly the risk of agranulocytosis, the summary of product characteristics (SPC) states that drug should only be considered where there has been a lack of satisfactory clinical improvement despite adequate trials, in dosage and duration, of at least two different antipsychotic agents including a second-generation antipsychotic (SGA).

See the "Side effects" section and Section 10.7 in the full version of the original guideline document for more information. See the "Trade-off between clinical benefits and harms sections in the full version of the original guideline document (see the "Availability of Companion Documents" field) for additional details about benefits of specific interventions.

Contraindications

Contraindications

At the time of publication of the original guideline document (February 2014), bupropion was contraindicated in people with bipolar disorder. Therefore, it is not recommended for people with psychosis unless they have a diagnosis of schizophrenia.

Qualifying Statements

Qualifying Statements

- This guidance represents the view of the National Institute for Health and Care Excellence (NICE), which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summary of product characteristics of any drugs they are considering.
- Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties.
- Treatment and care should take into account individual needs and preferences; in Wales services have a legal duty to meet these through the Mental Health Measure. Patients should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. If someone does not have the capacity to make decisions, healthcare professionals should follow the Department of Health's advice on consent, the code of practice that accompanies the Mental Capacity Act and the supplementary code of practice on deprivation of liberty safeguards. In Wales, healthcare professionals should follow advice on consent from the Welsh Government.
- NICE has produced guidance on the components of good patient experience in adult NHS services. All healthcare professionals should follow the recommendations in Patient experience in adult NHS services.
- For all recommendations, NICE expects that there is discussion with the patient about the risks and benefits of the interventions, and their values and preferences. This discussion aims to help them to reach a fully informed decision.
- The guideline will assume that prescribers will use a drug's summary of product characteristics to inform decisions made with individual patients.

Implementation of the Guideline

Description of Implementation Strategy

Key Priorities for Implementation

The following recommendations have been identified as priorities for implementation.

Preventing Psychosis

If a person is considered to be at increased risk of developing psychosis:

- Offer individual cognitive behavioural therapy (CBT) with or without family intervention and
- Offer interventions recommended in the National Institute for Health and Care Excellence (NICE) guidance for people with any of the anxiety disorders, depression, emerging personality disorder or substance misuse. [new 2014]

First Episode Psychosis

Early intervention in psychosis services should be accessible to all people with a first episode or first presentation of psychosis, irrespective of the person's age or the duration of untreated psychosis. [new 2014]

Assess for post-traumatic stress disorder and other reactions to trauma because people with psychosis or schizophrenia are likely to have experienced previous adverse events or trauma associated with the development of the psychosis or as a result of the psychosis itself. For people who show signs of post-traumatic stress, follow the recommendations in Post-traumatic stress disorder (NICE clinical guideline 26). [new 2014]

The choice of antipsychotic medication should be made by the service user and healthcare professional together, taking into account the views of the carer if the service user agrees. Provide information and discuss the likely benefits and possible side effects of each drug, including:

- Metabolic (including weight gain and diabetes)
- Extrapyramidal (including akathisia, dyskinesia and dystonia)

- Cardiovascular (including prolonging the QT interval)
- Hormonal (including increasing plasma prolactin)
- Other (including unpleasant subjective experiences) [2009; amended 2014]

Do not initiate regular combined antipsychotic medication, except for short periods (for example, when changing medication). [2009]

Subsequent Acute Episodes of Psychosis or Schizophrenia and Referral in Crisis

Offer CBT to all people with psychosis or schizophrenia. This can be started either during the acute phase or later, including in inpatient settings. [2009]

Offer family intervention to all families of people with psychosis or schizophrenia who live with or are in close contact with the service user. This can be started either during the acute phase or later, including in inpatient settings. [2009]

Promoting Recovery and Possible Future Care

General practitioners (GPs) and other primary healthcare professionals should monitor the physical health of people with psychosis or schizophrenia when responsibility for monitoring is transferred from secondary care, and then at least annually. The health check should be comprehensive, focusing on physical health problems that are common in people with psychosis and schizophrenia. Include all the checks recommended and refer to relevant NICE guidance on monitoring for cardiovascular disease, diabetes, obesity and respiratory disease. A copy of the results should be sent to the care coordinator and psychiatrist, and put in the secondary care notes. [new 2014]

Offer clozapine to people with schizophrenia whose illness has not responded adequately to treatment despite the sequential use of adequate doses of at least 2 different antipsychotic drugs. At least 1 of the drugs should be a non-clozapine second-generation antipsychotic. [2009]

Offer supported employment programmes to people with psychosis or schizophrenia who wish to find or return to work. Consider other occupational or educational activities, including pre-vocational training, for people who are unable to work or unsuccessful in finding employment. [new 2014]

Implementation Tools

Clinical Algorithm

Mobile Device Resources

Patient Resources

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Safety

Identifying Information and Availability

Bibliographic Source(s)

National Collaborating Centre for Mental Health. Psychosis and schizophrenia in adults: treatment and management. London (UK): National Institute for Health and Care Excellence (NICE); 2014 Feb. 54 p. (Clinical guideline; no. 178).

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2002 Dec (revised 2014 Feb)

Guideline Developer(s)

National Collaborating Centre for Mental Health - National Government Agency [Non-U.S.]

Source(s) of Funding

National Institute for Health and Care Excellence (NICE)

Guideline Committee

Guideline Development Group

Composition of Group That Authored the Guideline

Guideline Development Group Members: Elizabeth Kuipers (*Chair*), Professor of Clinical Psychology, Institute of Psychiatry, King's College London; Tim Kendall (Facilitator), Medical Director and Consultant Psychiatrist, Sheffield Health and Social Care NHS Foundation Trust and Director, National Collaborating Centre for Mental Health, London; Max Birchwood, Professor of Youth Mental Health, Division of Health and Wellbeing, Warwick Medical School, University of Warwick; Director of Research, Youthspace programme, Birmingham and Solihull Mental Health Foundation Trust; Alison Brabban, Consultant Clinical Psychologist, Tees, Esk & Wear Valleys NHS Foundation Trust; Honorary Senior Clinical Lecturer, Durham University, National Advisor for Severe Mental Illness (IAPT), Department of Health; Debbie Green, Directorate Lead for Occupational Therapy and Social Inclusion, Adult Mental Health, Oxleas NHS Foundation Trust, London; Zaffer Iqbal, Head of Psychology and Consultant Clinical Psychologist, Navigo NHS Health; Social Care CiC; Sonia Johnson, Professor of Social and Community Psychiatry, Mental Health Sciences, University College London, Consultant Psychiatrist, Camden and Islington Early Intervention Service, Camden and Islington NHS Foundation Trust; Tom Lochhead, Mental Health Lead Professional for Social Work in Bath and North East Somerset; Max Marshall, Professor of Community Psychiatry, University of Manchester, Honorary Consultant, Lancashire Care NHS Foundation Trust, Medical Director Lancashire Care NHS Foundation Trust; Deputy Director/Associate Director Mental Health Research Network England; Jonathan Mitchell, Consultant Psychiatrist, Sheffield Health and Social Care NHS Foundation Trust; Tony Morrison, Professor of Clinical Psychology, Division of Psychology, University of Manchester; David Shiers, GP Advisor to the National Audit of Schizophrenia (the Royal College of Psychiatrists), London, Rethink Mental Illness Trustee (2010-2012); Clive Travis, Service user representative; Rachel Waddingham, Service user representative, London Hearing Voices Project Manager; Peter Woodhams, Carer representative; Norman Young, Nurse Consultant, Cardiff and Vale University Health Board, Cardiff University

Financial Disclosures/Conflicts of Interest

To minimise and manage any potential conflicts of interest, and to avoid any public concern that commercial or other financial interests have affected the work of the Guideline Development Group (GDG) and influenced guidance, members of the GDG must declare as a matter of public record any interests held by themselves or their families which fall under specified categories. These categories include any relationships they have with the healthcare industries, professional organisations and organisations for people with schizophrenia and their families and carers. Individuals invited to join the GDG were asked to declare their interests before being appointed. To allow the management of any potential conflicts of interest that might arise during the development of the guideline, GDG members were also asked to declare their interests at each GDG meeting throughout the guideline development process. The interests of all the members of the GDG are listed in Appendix 2 in the full version of the original guideline document (see the "Availability of Companion Documents" field), including interests declared prior to appointment and during the guideline development process.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: National Collaborating Centre for Mental Health. Schizophrenia: core interventions in the treatment and management of schizophrenia in adults in primary and secondary care. London (UK): National Institute for Health and Clinical Excellence (NICE); 2009 Mar. 41 p. (NICE clinical guideline; no. 82).

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Electronic copies: Available from the National Institute for Health and Care Excellence (NICE) Web site . Also available for download as a Kindle or EPUB ebook from the NICE Web site .

Availability of Companion Documents

The following are available:

- Psychosis and schizophrenia in adults: treatment and management. Full guideline. London (UK): National Institute for Health and Care Excellence (NICE); 2014 Feb. 685 p. (Clinical guideline; no. 178). Electronic copies: Available in Portable Document Format (PDF) from the National Institute for Health and Care Excellence (NICE) Web site .
- Psychosis and schizophrenia in adults: treatment and management. Appendices. London (UK): National Institute for Health and Care Excellence (NICE); 2014 Feb. (Clinical guideline; no. 178). Electronic copies: Available in PDF from the NICE Web site .
- Psychosis and schizophrenia in adults: treatment and management. Baseline assessment tool. London (UK): National Institute for Health and Care Excellence; 2014 Feb. Various p. (Clinical guideline; no. 178). Electronic copies: Available in PDF from the NICE Web site .
- Costing statement: psychosis and schizophrenia in adults: treatment and management. Implementing the NICE guideline on psychosis and schizophrenia in adults (CG178). London (UK): National Institute for Health and Care Excellence; 2014 Mar. 8 p. (Clinical guideline; no. 178). Electronic copies: Available in PDF from the NICE Web site .
- The guidelines manual 2012. London (UK): National Institute for Health and Care Excellence (NICE); 2012 Nov. Electronic copies: Available from the NICE Web site .

Patient Resources

The following is available:

- Psychosis and schizophrenia in adults. Understanding NICE guidance. London (UK): National Institute for Health and Care Excellence; 2014 Feb. (Clinical guideline; no. 178). Electronic copies: Available in Portable Document Format (PDF) from the National Institute for Health and Care Excellence (NICE) Web site . Also available for download as a Kindle or EPUB ebook from the

NICE Web site .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This summary was updated by ECRI Institute on September 22, 2009. This summary was updated by ECRI Institute on May 20, 2011 following the U.S. Food and Drug Administration advisory on antipsychotic drugs. This summary was updated by ECRI Institute on May 29, 2014. This summary was updated by ECRI Institute on April 8, 2015 following the U.S. Food and Drug Administration advisory on Chantix (varenicline). This summary was updated by ECRI Institute on October, 5 2015 following the U.S. Food and Drug Administration advisory on Clozapine. This summary was updated by ECRI Institute on May 24, 2016 following the U.S. Food and Drug Administration advisory on Olanzapine.

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